

## ABSTRACT

The present invention relates to a method for improved diagnosis of dysplasias based on simultaneous detection of INK4a gene products and at least one marker for cell proliferation. Particularly the present invention provides a method for discriminating dysplastic cells over-  
5 expressing INK4a gene products from cells over-expressing INK4a gene products without being dysplastic by detection of a marker suitable for characterising the proliferation properties of the respective cell. The characterisation of the proliferation properties may comprise the detection of a marker or a set of markers characteristic for active cell proliferation and/or a marker or a set of markers characteristic for retarded or ceased cell proliferation. The method presented herein thus  
10 enables for a specific diagnosis of dysplasias in histological and cytological specimens.